Experiences and Constraints
Risk Management in African Agricultural Markets; Taking Stock of what has and hasn't worked
AAMP 4th Policy/Training Seminar
Lilongwe, Malawi
September, 2010

Outline

- Who is ZAMACE
- Services
- Partnerships
- Challenges

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Mission Statement

ZAMACE will provide an efficient and vibrant Zambian and regional agricultural commodity exchange, supported by a warehouse certification and receipts system to enhance market access, liquidity and credibility in the commodities market.

- Established in May, 2007
- Response to demand for a market mechanism that addresses the market imperfections that have stifled growth in the agricultural sector
- Mutual organisation, private limited liability company
- Corporate membership
- Market use of the Exchange is voluntary

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Ownership & Control

|----------------------|------------------------|----------------------|------------|

- Currently owned by 15 Member-Brokers
- 2 Members seats offered for sale (in red)
- Members governed by Exchange Rules & Regulations
- Board seats comprise; 1 Independent Chairman, 8 Member-brokers, 3 Institutional (ZNFU, MAZ & BAZ) and 3 Ex-officio (PROFIT, ED & FD)
- Total staff compliment of 6
- Initial financial and technical support by USAID-PROFIT

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1. Commodity Trading

- Recorded first trade on 4th October 2007
- Trade major grain and oil seeds (maize, wheat, soya beans and sunflower)
- Other commodities traded as well including processed products (soya/cotton cake, maize meal, bran, edible beans, fertiliser and cement)
- Public place positions to buy/sell through broker
Basic Schematic

Negotiation leads to a trade

BUYING BROKER → BID position → SELLING BROKER

OFFER Position → SELLING BROKER

FARMER/FARMER ASSOCIATION OR TRADER

DAILY REPORT

PROCESSOR/TRADER

Issues Buy Instruction → Sees buy positions and/or trends

Sees sell positions and/or trends

Envisaged Settlement Guarantee Model

Settlement Bank

Buyer → Buying Broker → ZAMACE Settlement Account → Selling Broker → Seller

Broker Risk Exposure Formula

(All ‘Buy’ Trades Undelivered x % value) PLUS (All ‘Buy’ Trades Delivered x 100% value) PLUS (All ‘Sell’ Trades Undelivered x % value) PLUS (All ‘Sell’ Trades Delivered x 0% value) MINUS Balance in Broker Account = Broker Risk Exposure
Quarterly Total Turnover & Volume

Commodity Contribution by Total Turnover Oct 2007 – Aug 2010

<table>
<thead>
<tr>
<th>COMMODITY CATEGORY</th>
<th>TURNOVER (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAIN</td>
<td>52,425,636.15</td>
</tr>
<tr>
<td>MAIZE MEAL</td>
<td>2,212,979.59</td>
</tr>
<tr>
<td>OIL SEED</td>
<td>12,544,868.24</td>
</tr>
<tr>
<td>PULSES</td>
<td>221,223.00</td>
</tr>
<tr>
<td>BRAN</td>
<td>27,875.00</td>
</tr>
<tr>
<td>CEMENT</td>
<td>127,362.90</td>
</tr>
<tr>
<td>FERTILISER</td>
<td>527,050.00</td>
</tr>
<tr>
<td>Grand Total</td>
<td>68,086,994.88</td>
</tr>
</tbody>
</table>
Commodity Contribution by Total Turnover Oct 2007 – Aug 2010

YTD Bid Side Member-Broker Ranking
2. Grades & Standards

- ZAMACE has developed quality standards, acceptable to and recognised by the agricultural industry
- Harmonised Wheat standard with SAFEX standard
- Exchange contracts adhere to these standards
- Laboratory service for independent quality testing
- Ring testing with South African Grain Laboratory (SAGL)
- More standards requested by market e.g rice, barley, edible beans and groundnuts

ZAMACE Maize Standard

<table>
<thead>
<tr>
<th>QUALITY PARAMETER</th>
<th>UOM</th>
<th>GRADES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Moisture</td>
<td>%</td>
<td>12.5 max</td>
</tr>
<tr>
<td>Extraneous matters</td>
<td>%</td>
<td>1.0 max</td>
</tr>
<tr>
<td>Broken Grains</td>
<td>%</td>
<td>6.0 max</td>
</tr>
<tr>
<td>Other Coloured grains</td>
<td>%</td>
<td>3.0 max</td>
</tr>
<tr>
<td>Total other Defective grains of which:</td>
<td></td>
<td>11.0 max</td>
</tr>
<tr>
<td>a. Discoloured grains</td>
<td>%</td>
<td>3.0 max</td>
</tr>
<tr>
<td>b. Insect/pest damaged grains</td>
<td>%</td>
<td>3.0 max</td>
</tr>
<tr>
<td>c. Diseased grain</td>
<td>%</td>
<td>2.0 max</td>
</tr>
<tr>
<td>d. Immature or Shrivelled grain</td>
<td>%</td>
<td>1.0 max</td>
</tr>
<tr>
<td>e. Fungal damaged grains</td>
<td>%</td>
<td>0.5 max</td>
</tr>
<tr>
<td>f. Germinated grains</td>
<td>%</td>
<td>NIL</td>
</tr>
<tr>
<td>g. Pass thru 6.35mm sieve</td>
<td>%</td>
<td>1.5 max</td>
</tr>
<tr>
<td>Diplodia</td>
<td>%</td>
<td>NIL</td>
</tr>
<tr>
<td>Fusarium</td>
<td>%</td>
<td>0.5 max</td>
</tr>
</tbody>
</table>
3. Warehouse Inspection & Certification

- Secure storage guarantees Q&Q of stored crop
- ZAMACE trains and certifies warehouse operators to manage, grade and store commodities
- Critical to participation of emergent and small farmers – trade confidence in aggregation
- Identifying and inspecting storage in districts to develop WRS

ZAMACE and the Smallholder

- Provides transparency and price discovery
- Removes all position-takers between the farmer/trader and the end market
- Offers the best possible market price under prevailing market conditions
- Mitigates substantial risks in transactions
- Empowers the farmer to evolve from price-taker to price-setter
- Eventually will create the opportunity to access credit

ZAMACE provides the conditions for 'commercialising' the smallholder and emergent farming sectors
Chongwe Pilot 2008/09

- Collaboration with Participatory Village Development in Isolated Areas (PaViDIA)
- PaViDIA supported villages to setup community sheds
- ZAMACE role was to encourage farmers to fill the sheds with maize for onward placement on the Exchange
- Each community appointed a shed quality manager

Smallholder Wisdom
Grain Marketing Expansion Program (GMEP) Model

ZAMACE AND THE SMALLHOLDER FARMER

ZAMACE

Operations of the Exchange were also explained to the participants

ZAMACE inspected +50 community sheds for storage of maize

Chongwe Pilot 2008/09

- ZAMACE conducted training sessions for targeted smallholder farmers on grain grading, handling and storage
- Operations of the Exchange were also explained to the participants
- ZAMACE inspected +50 community sheds for storage of maize

Newton Samangwe – ZAMACE Operations Manager training Chongwe farmers
## Example of GMEP

<table>
<thead>
<tr>
<th>Region</th>
<th>Warehouse operators</th>
<th>Certified Capacities</th>
<th>Community Sheds/ First Level Aggregation Points</th>
<th>Estimated Capacity (Mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Province</td>
<td>Moomba Investment - Monze &amp; Kalomo Districts</td>
<td>300</td>
<td>Chiyobola (Kaloma)</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mulunga 1st level shed</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bulimo coop. shed</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Moomba shed</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Afgri - Choma District</td>
<td>5,000</td>
<td>Chiyobola Community - Sibanje Shed, Monze District, Southern Province</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mpangwe shed</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chipoma shed</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>Afgri - Kabwe</td>
<td>5,000</td>
<td>Kalwelwe Shed</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mpangwe Shed</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Citron - Mkushi</td>
<td>270</td>
<td>Mulunga farm shed</td>
<td>40</td>
</tr>
<tr>
<td>Eastern Province</td>
<td>COMACO</td>
<td>1,000</td>
<td>Chiyobola</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mulunga</td>
<td>1,000</td>
</tr>
</tbody>
</table>

### GMEP Start-up Areas

- Southern, Central and Eastern Provinces
- USAID/COMPETE funding this outreach initiative cost share basis
- WFP purchased maize shellers, scales and sieves for ZAMACE on-ward lease to farmers
- District warehouse operators in process of being certified

*Chiyobola Community - Sibanje Shed, Monze District, Southern Province*
GMEP Partners

- USAID-COMPETE is providing 12 months financial support to the initiative
- ZAMACE is facilitating the lease of smallscale shellers, scales and sieves to smallscale farmers through WFP/P4P support

A technician from SARO Agric conducting training on use of the shellers to Twikatane participating community in Central Province

GMEP in Southern Province

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4. Dispute Resolution

- ZAMACE transactions are backed by enforceable standardised contracts
- All disputes referred to Arbitration as per ZAMACE Rules of Arbitration
- Arbitration backed by Arbitration Act
- Encouraging respect for contracts
Partnerships

- EU has given ZNFU 2.4 million Euros facility to establish 3 Agricultural Service Centres (ASC) in Southern/Central and Eastern Provinces.
- This infrastructure will be ready in 2011/12 season.
- Storage to be certified by ZAMACE, operated by a private entity and the lab and weighbridge to be operated by ZAMACE.
- Potential collaboration with Technoserve to roll-out GMEP in other areas.

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Challenges
Some of our Challenges

- Absence of legal framework for commodities Exchange – working with - Securities and Exchanges Commission (SEC) to develop framework
- Need for settlement guarantee structure – developing model with one of the banks
- ICT infrastructure for trading and WR issue and monitoring
- Training of stakeholders and legislators on importance of commodity exchange
- Enhancement of Laboratory equipment
- Streamlining role of Government in commodity trade
- General public awareness of commodities exchange is low

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Thank you!

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